Teaching *NeuroImages*: Hemorrhage associated with reversible posterior leukoencephalopathy syndrome

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A 23-year-old woman developed vision loss and a generalized seizure after a rise in blood pressure. Neuroimaging revealed reversible posterior leukoencephalopathy syndrome (RPLS) and intracerebral hemorrhage (ICH) (figure, A).

A 30-year-old woman with renal failure had a seizure after missing her antihypertensive medications. Head CT demonstrated subarachnoid hemorrhage (SAH). CT angiogram was unremarkable. MRI revealed RPLS (figure, B and C).

RPLS causes vasogenic subcortical edema associated with acute hypertension or medications. In one series, 2/38 cases had associated ICH.¹ In a

series of isolated convexity SAH, 5/20 cases had RPLS.² The co-occurrence of RPLS should be considered in patients with acute hypertension and ICH or SAH.

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Figure Two cases of reversible posterior leukoencephalopathy syndrome with hemorrhage

(A) Head CT shows occipital white matter hypodensity with left occipito-parietal and internal capsule intracerebral hemorrhage. Magnetic resonance venography showed no thrombosis. MRI confirmed posteriorly predominant vasogenic edema, which completely resolved on a 10-month follow-up scan (MRIs not shown). (B) Head CT demonstrates subarachnoid hemorrhage in the left precentral sulcus. (C) MRI fluid-attenuated inversion recovery image demonstrates posteriorly predominant vasogenic edema.

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